4. (original): The system of claim 1, wherein the home gateway operates by converting TCP/UDP, IP, and MAC packets in the header and payload in order to connect to the local IP network.

5. (original): The system of claim 3, wherein the home gateway operates by converting TCP/UDP, IP, and MAC packets in the header and payload in order to connect to the local IP network.

6. (original): A method of initiating a call for multi-telecommunication over a local IP network, comprising the steps of:

assigning a port to a first terminal when said first terminal requests a

call initiation, and storing information of the terminal;

converting a transmission packet according to the stored information

and transmitting the converted transmission packet; and

converting a received packet when the packet corresponding to the

stored information is received, converting the received packet according to the stored information, and transmitting the converted packet to said first terminal.

7. (original): The method of claim 6, wherein IP and port information of the terminal is stored in the header and payload of the packet, and changed in the packet conversion.

8. (original): The method of claim 6, further comprising the step of discovering a gatekeeper in an IP network connected to the local IP network and registering said first terminal in the gatekeeper, upon request of the call initiation.

9. (original): The method of claim 6, further comprising the steps of:

4. (original): The system of claim 1, wherein the home gateway operates by converting TCP/UDP, IP, and MAC packets in the header and payload in order to connect to the local IP network.

5. (original): The system of claim 3, wherein the home gateway operates by converting TCP/UDP, IP, and MAC packets in the header and payload in order to connect to the local IP network.

6. (original): A method of initiating a call for multi-telecommunication over a local IP network, comprising the steps of:

assigning a port to a first terminal when said first terminal requests a

call initiation, and storing information of the terminal;

converting a transmission packet according to the stored information

and transmitting the converted transmission packet; and

converting a received packet when the packet corresponding to the

stored information is received, converting the received packet according to the stored information, and transmitting the converted packet to said first terminal.

7. (original): The method of claim 6, wherein IP and port information of the terminal is stored in the header and payload of the packet, and changed in the packet conversion.

8. (original): The method of claim 6, further comprising the step of discovering a gatekeeper in an IP network connected to the local IP network and registering said first terminal in the gatekeeper, upon request of the call initiation.

9. (original): The method of claim 6, further comprising the steps of:

14. (original): The method of claim 13, further comprising the steps of: requesting a call connection by said second terminal upon receiving the call request; and

transmitting an IP address and a port number of said second terminal to said first terminal when the call connection is admitted.

15. (original): The method of claim 14, wherein the gatekeeper performs the functions of receiving the call connection request and admitting the call connection.

16. (original): The method of claim 15, further comprising the step of establishing channels for real-time transmission between said first terminal and said second terminal by opening channels according to the exchanged IP and port information and exchanging messages.

17. (original): The method of claim 16, further comprising the step of conducting a voice call or a video call on UDP channels when the real-time transmission channels are established.

18. (original): The method of claim 17, wherein the ID of the terminal is an internal IP address assigned by the local IP network.

19. (original): The method of claim 17, wherein a plurality of terminals connected to the local IP network are differentiated by different TCP and UDP ports.

20. (original): The method of claim 19, wherein TCP is a protocol for searching for the gatekeeper, registering the terminals in the gatekeeper, gaining admission to call connection from the gatekeeper for said first terminal, transmitting the IP and port information of said first terminal to said second terminal, gaining admission to call connection from the gatekeeper for said second terminal, transmitting the IP and port information of said second terminal to said first terminal, and establishing the real-time transmission channels.

21. (original): The method of claim 6, wherein transmitted and received packets are converted using an IP address assigned to the local IP network and an internal IP address and port number of said first terminal.

22. (original): The method of claim 21, wherein the local IP network includes a plurality of terminals, including said first terminal, each of said plurality of terminals having respective IP information and port information associated therewith,

wherein said IP information and said port information are used for packet conversion, and

wherein a memory map for storing said IP information and said port information is constructed, said memory map indicating at least one of said plurality of terminals corresponding to a respective IP address, a respective internal IP address for allowing a local network to identify each terminal, and a respective port number.

23. (original): The method of claim 22, wherein said memory map is constructed as a table.

24. (original): The method of claim 22, wherein one of the respective IP addresses is shared by more than one of said plurality of terminals.

25. (original): The method of claim 24, wherein terminals 1-9 are assigned to IP address 203.234.47.18 and terminals 10 and higher are assigned to IP address 203.234.47.19.

26. (original): The method of claim 24, wherein each of the respective internal IP addresses is between the range of 10.0.0.0 to 10.0.255.255.

27. (original): The method of claim 21, wherein in the step of storing information of the terminal, the stored information includes port information, and the port information is registered in a gatekeeper and updated by the gatekeeper when the port information is changed.

28. (withdrawn): A method of operating a home gateway for multi-telecommunication over a local IP network, comprising the steps of:

determining whether a call connection is requested by analyzing a packet upon receipt of the packet and checking whether the number of connection lines currently sharing the same IP address is greater than or equal to a predetermined number of connection lines, upon request of the call connection;

opening a channel for a second terminal according to an IP and port information of a destination in the packet if a number of connection lines is less than or equal to the predetermined number of connection lines;

converting the packet according to the IP and port information of a first terminal and said second terminal and transmitting the packet; and

denying call connection and performing an error-related operation if the number of the connection lines is greater than the predetermined number of connection lines.

29. (original): A packet receiving method for multi-telecommunication over a local IP network, comprising the steps of:

determining whether a call connection to a second terminal connected to the local IP network is requested by analyzing a packet upon receipt of the packet from an IP network;

opening a channel for said second terminal according to the IP and port information of a destination in the packet upon request of the call connection; and

converting transmitted and received packets according to the IP and port information of a first terminal and said second terminal.

30. (original): The method of claim 29, wherein IP and port information in the header and payload of the packet is changed in the packet conversion.

31. (original): The method of claim 29, further comprising the steps of:

requesting admission to call connection upon request of packet receipt, said request sent to a gatekeeper in the IP network connected to the local IP network;

transmitting the IP and port number of said second terminal to said first terminal when the gatekeeper admits the call connection.

32. (original): The method of claim 31, further comprising the step of establishing channels for real-time transmission between said first terminal and said second terminal by opening channels according to the exchanged IP and port information, and exchanging messages.

33. (original): The method of claim 32, further comprising the step of conducting a voice call or a video call on UDP channels when the real-time transmission channels are established.

34. (original): The method of claim 33, wherein a plurality of terminals connected to the local IP network are differentiated by internal IP addresses assigned to the terminals.

35. (original): The method of claim 34, wherein the plurality of terminals connected to the local IP network are differentiated by different TCP and UDP ports assigned to the terminals by the IP network.

36. (original): The method of claim 35, wherein TCP is a protocol for gaining admission to call connection from the gatekeeper, transmitting the IP and port information of said first terminal to said second terminal, and establishing the real-time transmission channels.

37. (original): The method of claim 29, wherein transmitted and received packets are converted using the IP address assigned to the local IP network and the internal IP address and port number of the terminal connected to the local IP network.

38. (original): The method of claim 37, wherein the local IP network includes a plurality of terminals, including said first terminal and said second terminal, each of said plurality of terminals having respective IP information and port information associated therewith,

wherein said IP information and said port information are used for packet conversion, and

wherein a memory map for storing said IP information and said port information is constructed, said memory map indicating at least one of said plurality of terminals corresponding to a respective IP address, a respective internal IP address for allowing a local network to identify each terminal, and a respective port number.

39. (original): The method of claim 38, wherein said memory map is constructed as a table.

40. (original): The method of claim 38, wherein one of the respective IP addresses is shared by more than one of said plurality of terminals.

41. (original): The method of claim 40, wherein terminals 1-9 are assigned to IP address 203.234.47.18 and terminals 10 and greater are assigned to IP address 203.234.47.19.

42. (original): The method of claim 40, wherein each of the respective internal IP addresses is between the range of 10.0.0.0 to 10.0.255.255.

43. (original): The method of claim 38, wherein the port information is registered in a gatekeeper and updated by the gatekeeper when the port information is changed.

44. (currently amended): A method of conducting a telephone call using one IP address for a plurality of terminals connected to a local IP network, comprising the steps of:

determining whether a packet is assigned to the local IP network by a home gateway of the local IP network, upon receipt of the packet from an IP network;

determining whether the packet is for a telephone call if the packet is assigned to the local IP network;

converting the header and payload of the packet according to IP and port information preset for the telephone call, if the packet is for the telephone call, and transmitting the converted packet to a terminal connected to the local IP network;

determining whether the packet is for ~~conventional~~ Internet communication if the packet is not for the telephone call; and

converting the packet according to IP and port information preset for the ~~conventional~~ Internet communication if the packet is for the ~~conventional~~ Internet communication and transmitting the converted packet to the terminal connected to the local IP network.

45. (currently amended): The method of claim 44, wherein the port information indicate a port assigned for the ~~conventional~~ Internet communication and a port assigned to the terminal for the telephone call in order to differentiate the terminal from the other terminals sharing the same IP address.

46. (original): The method of claim 44, wherein the ports are TCP and UDP ports.

47. (original): The method of claim 45, wherein the ports are TCP and UDP ports.

48. (currently amended): A method of conducting a telephone call using one IP address in a plurality of terminals connected to a local IP network, comprising the steps of:

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determining whether a packet is for a telephone call by a home gateway of the local IP network, upon receipt of the packet from a terminal connected to the local IP network;

converting the header and payload of the packet, if the packet is for the telephone call, and transmitting the converted packet to an IP network;

determining whether the packet is for ~~conventional~~ a first Internet communication if the packet is not for the telephone call;

converting the packet and transmitting the converted packet to the IP network; and

registering an IP address and a port number of the packet for ~~new~~ a second Internet communication if the packet is neither for the telephone call nor for the ~~conventional~~ first Internet communication.

49. (currently amended): The method of claim 48, wherein if the packet is for the telephone call, the header and payload of the packet are converted according to IP and port information preset for the telephone call, and if the packet is for the ~~conventional~~ first Internet communication, the packet is converted according to IP and port information preset for the ~~convention~~ first Internet communication.

50. (original): The method of claim 49, wherein the port information indicate a port assigned for the conventional Internet communication and a port assigned to the terminal for the telephone call to identify the terminal from the other terminals sharing the same IP address.

51. (original): The method of claim 49, wherein the ports are TCP and UDP ports.

52. (original): The method of claim 50, wherein the ports are TCP and UDP port.

53. (previously presented): The method of claim 6, wherein the port is assigned to said first terminal only when said first terminal requests a call initiation.

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54. (previously presented): The system of claim 1, wherein the home gateway uses a network address port table (NAPT) for an internet connection, and a forwarding table for a call connection.

55. (previously presented) The system of claim 54, wherein the NAPT temporarily exists in accordance with an internet connection.

56. (previously presented) The system of claim 54, wherein the NAPT and the forwarding table include said IP and port information, wherein said IP and port information in said NAPT are deleted if the internet connection is released, and wherein said IP and port information in said forwarding table is preserved.